CLAIMS

1. A sensor (1,100) for capacitively measuring the distance to a stationary or passing object comprising an electrically conductive ceramic electrode (2, 102) for capacitively coupling with the object, and a housing (4, 106) that substantially surrounds the electrode (2, 102).

2. A sensor according to claim 1, wherein the housing (106) is formed from an electrically non-conductive ceramic.

3. A sensor according to claim 1 or claim 2, further comprising a shield (105) that surrounds the electrode (102) and is electrically isolated from the electrode (102) by an insulating layer (104).

4. A sensor according to claim 3, wherein the shield (105) is formed from a solid piece of electrically conductive ceramic.

5. A sensor according to claim 3, wherein the shield (105a) is a deposited electrically conductive ceramic layer.

6. A sensor according to claim 3, wherein the shield (105b) is a deposited electrically conductive ceramic or metal layer.

7. A sensor according to any of claims 3 to 6, wherein the insulating layer (104) is formed from an electrically non-conductive ceramic.

8. A sensor according to any preceding claim, further comprising:

a first electrically conductive bridge (5) connected to the electrode (2) and connectable to the conductor of a transmission cable; and

a second electrically conductive bridge (7) connected to the housing (4) and connectable to the conductor of a transmission cable.

9. A sensor according to claim 8, wherein the first electrically conductive bridge (5) passes through apertures provided in the housing (4) and the second electrically conductive bridge (7).

10. A sensor according to claim 8 or claim 9, wherein the second electrically conductive bridge (7) substantially surrounds the housing (4).

11. A sensor according to any of claims 8 to 10, further comprising an adaptor (30, 40) for connecting the second electrically conductive bridge (7) to the conductor of a transmission cable.

12. A sensor according to any of claims 3 to 7, further comprising:

a first electrically conductive bridge (107) connected to the electrode (102) and connectable to the conductor of a transmission cable;

a second electrically conductive bridge (111) connected to the housing (106) and connectable to the conductor of a transmission cable; and

a third electrically conductive bridge (109) connected to the shield (105) and connectable to the conductor of a transmission cable.

13. A sensor according to claim 12, wherein the first electrically conductive bridge (107) passes through apertures provided in the insulating layer (104), the shield (105), the third electrically conductive bridge (109), the housing (106) and the second electrically conductive bridge (111), and wherein the third electrically conductive bridge (109) passes through apertures provided in the housing (106) and the second electrically conductive bridge (111).

14. A sensor according to claim 12 or claim 13, further comprising an adaptor (60,70) for connecting the second electrically conductive bridge (111) to the conductor of a transmission cable and the third electrically conductive bridge (109) to the conductor of a transmission cable.

15. A sensor (100) according to claim 3, wherein one or more of the electrode (102), shield (105), insulating layer (104) and housing (106) are bonded together.

16. A sensor (100) according to claim 15, wherein the bonding provides a hermetic seal between the one or more of the electrode (102), shield (105), insulating layer (104) and housing (106).